

BLACKWOOD FIRE COMPANY OPERATING GUIDELINE

9.3 TACTICAL OPERATIONS - WATER SUPPLY

- 9.3.1 A supplemental water supply shall be considered whenever any engine is in service with 1 3/4" hose or larger.
- 9.3.2 The IC may use discretion in using tank water from other engines when in service at non-structural fires.
- 9.3.3 Unless otherwise noted, "supply hose" is 5" large diameter hose.
- 9.3.4 The following are standard terms related to establishing water supply.
 - 9.3.4.1 Straight Lay - The engine performing the lay will stop at the water source leaving the hydrant bag and 1 member. The supply hose is wrapped securely around the hydrant and the supply hose is laid to the scene.
 - 9.3.4.2 Reverse Lay - The engine performing the lay will stop at the apparatus to be supplied, secure the supply hose at the scene and lay to the water source.
 - 9.3.4.3 Split Lay - This lay is a combination of the previous hose lays and is used when entering a limited access area. The first engine will generally stop at the entrance (driveway, cul de sac, etc...) secures the supply hose to a street sign, utility pole or other object and performs a straight lay to the fire scene. The second engine will usually stop at the entrance, secure their supply hose to the same object and perform a reverse lay to the water source. After the lay is complete a member can make the connection between the 2 lines.
- 9.3.5 Hydrant hook ups will be made to supply the maximum water flow possible. Gated valves shall be attached to the 2.5" side ports on a triple header hydrant and to the remaining side port of a Mae West hydrant.
- 9.3.6 When the engine at the scene is prepared to receive water from the supply line, communications should be made via portable radio or by 3 distinct blasts of the apparatus air horns.
- 9.3.7 Supply hose should not be laid over 1000' without an engine in relay. If a high water flow is required (>1000 gpm), an engine should be placed every 800'.
- 9.3.8 Discharge pressure on 5" supply hose shall not exceed 185 psi.

- 9.3.9 In-Line Pumping - If an additional line cannot be deployed and a greater flow is required from the existing supply line, in-line pumping may be required. If the supply line is not yet in service that engine merely connects between the supply line and hydrant and boosts pressure and flow. If the supply line is already in service, take the following steps:
- A) Locate the closest coupling to the hydrant where the engine can be positioned between the couplings.
 - B) Advise the IC that water supply will be interrupted and request all apparatus utilizing supply line fill their tanks.
 - C) Remove intake cap from pump side closest to hydrant and outlet cap from discharge on fire side and open valves.
 - D) Position personnel as follows:
 - 1 firefighter at hydrant prepared to close, then open hydrant,
 - 2 firefighters at coupling to be broken. After breaking coupling, members should drain the last 6-10' of hose only and pull out of way.
- Driver to position apparatus between broken coupling ends.
Firefighters with coupling ends attach hose to open fittings and signal for hydrant to be opened.
Pump operator increases pressure to 150 psi or as needed.
- 9.3.10 Relay Pumping - Relay pumping should be employed on hose lays 1000' or more or 800' or more when high flows are required.
- A) Relay pumpers should make connections to provide highest water flow available through their pumper.
 - B) Standard residual pressure for relay pumping is 10 psi.
 - C) Discharge pressures may not exceed 185 psi.
 - D) Communications in relay pumping is between the source and scene pumpers **ONLY**. All other pump operators are expected to monitor their radios and react to increases or decreases on their pump gauges.
- 9.3.11 Dual Pumping - Dual pumping may be employed when the source engine is on an exceptionally strong hydrant. When the source engine has reached its maximum discharge pressure and still has a residual of more than 50% of the static pressure a second line may be laid to the original hydrant and another engine attached to the first intake to intake. The second engine will receive the residual of the first.
- 9.3.12 Rapid Water - Obtaining a continuous water supply rapidly is essential in controlling a large fire. The first engine perform a straight lay and immediately start water via its water tank and then through a non-pressurized cold water line. The second engine will proceed to the scene, dropping of personnel and equipment. The second engine will then reverse lay to the next closest hydrant and hook up for maximum water supply and pump the line. Relay engines will be used as necessary on the second line.